

REMARKS

In the June 20, 2007, Office Action, the Examiner noted that claims 1 and 3-18 were pending in the application; objected to claim 17; rejected claims 1 and 3-18 under the second paragraph of 35 U.S.C. § 112; and rejected claims 1 and 3-18 under 35 U.S.C. § 103(a). In rejecting the claims, "Applicant Admitted Prior Art" and U.S. Patents Lee et al. (U.S. 6,754,818) and Wu et al. (U.S. 6,105,130) were cited. Claims 1, 3-13 and 15-18 have been amended. Claims 1 and 3-18 are pending and under consideration. Applicants assert that no new matter has been added. Applicants thank the Examiner for granting an Interview on October 22, 2007 to discuss the present application. The following remarks elaborate on the patentable distinctions discussed during the interview.

Objection To The Claims

Claim 17 was objected to for reciting "said access boot device." Applicants have amended claim 17, line 18, to now recite "said accessed boot device" as per the Examiner's suggestion. Accordingly, applicants respectfully request the objection be withdrawn.

Rejections Under 35 U.S.C. § 112

Claims 1-18 were rejected under the second paragraph of 35 U.S.C. § 112 for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention.

Claim 1 was objected to for reciting "said variable data" (formerly line 18, now line 20), when the claim recites first, second and third variable data. Applicants have amended the term to recite "clearing said index data of said second variable data to an initial value when booting is successful" and the Examiner was correct to assume that the "index data" of the "second variable data" was intended.

Claims 1, 17 and 18 were objected to for reciting "said booting order included in said device setting data" (line 18-19 in claim 1 for example), when booting order is defined by second variable data and device setting data is defined by first variable data. Applicants have amended claims 1, 17 and 18 to recite "said booting order of said boot candidates in said index data included in said second variable data" for purposes of clarification.

Accordingly, applicants respectfully assert that the claims now even more fully comply with the second paragraph of 35 U.S.C. § 112.

Rejections Under 35 U.S.C. § 103(a)

Claims 1, 3 and 7-15, 17-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al., (U.S. 6,754,818) in view of Applicant's Admitted Prior Art (hereinafter "AAPA"). This rejection is respectfully traversed.

Claim 1, as currently amended, recites:

An apparatus where an operating system, read out from a selected device of a multiplexed plurality of **devices containing respective operating systems...** comprising:

a storing unit which stores environment... said environment data includes: **first variable data including device setting data** designating boot candidates for said plurality of devices, **second variable data including index data** setting a booting order of said boot candidates set by said device setting data, and **third variable data in which whether said multiplexing of the plurality of devices is valid or not valid is set;**

...changing said booting order of said boot candidates in said index data included in said second variable data **when an abnormality is detected in said boot device...**

said boot control unit **switching said accessed boot device to another boot device according to a changed booting order of said index data** and controlling starting up of said operating system stored in the other boot device.

(claim 1, lines 1-24, emphasis added).

For example, in the embodiment of the invention in claim 1, if the system is multiplexed with a boot device of a master system and a slave system configuration, when the apparatus fails to boot the master system, the boot device of the slave system will be booted in the subsequent boot. If the master system, however, is successfully booted, then the master system will be booted in the subsequent boot.

In contrast, Lee describes a computer system comprising a plurality of boot devices (storage medium – e.g. Floppy disk, CD-ROM etc.) each of which store a boot image, a processor connected to a memory, and a controller controlling the plurality of boot devices and booting one of the plurality of boot devices.

First, Lee fails to describe a "third variable data in which whether said multiplexing of the plurality of devices is valid or not valid is set" as recited in claim 1 (lines 7-8). On page 4, lines 17-18, the Office Action asserts that Figure 1 element 118 and the BISST in Lee discloses this feature. Although the BISST maintains a list of available boot devices, BISST does not describe determining whether multiplexing is valid. Merely keeping a list of available boot devices does not correlate to maintaining a specific variable to determine whether multiplexing is valid.

Second, in the embodiment of claim 1, an efficiency is created in that the system does not attempt to reboot a device in which an abnormality was previously detected. Lee does not contemplate nor describe such an efficiency.

For example, Lee fails to disclose a "second variable data including index data setting a booting order of said boot candidates" as recited by claim 1 (lines 6-7). As discussed during the Interview of October 22, 2007, Lee does not contemplate the ability to keep track of whether a device has successfully booted. In the embodiment of claim 1, for example, if the master system is not successfully booted, the second variable is updated such that the slave system will be booted in the subsequent boot. In Lee, however, as described in column 4, lines 5-9, the boot image selection is simply rotated amongst all available boot images in a round robin fashion, or it may be a random choice amongst the available boot images. In other words, as described column 4, lines 10-19, the system in Lee merely continuously attempts to boot the system until an uncorrupted boot image is found. Accordingly, Lee does not describe using an *index* to specify a particular boot order.

Moreover, Lee fails to disclose "*changing said booting order of said boot candidates in said index data included in said second variable data when an abnormality is detected*" as recited by claim 1 (lines 18-19, emphasis added). Again, as described in column 4, lines 10-19, the system in Lee merely attempts to boot the next in line (or random) device after an unsuccessful boot attempt and does not update any form of boot order. Accordingly, Lee also fails to describe "*switching said accessed boot device to another boot device according to a changed booting order of said index data*" as recited by claim 1 (lines 23-24, emphasis added).

Therefore, claim 1 patentably distinguishes over the cited art for at least the above-mentioned reasons. Dependent claims 3, 7-15 inherit the patentable recitation of their base claim, and therefore, patentably distinguish over the cited art for at least the above-mentioned reasons in addition to the additional features recited therein.

Independent claims 17 and 18 also recite the features described above with respect to claim 1. Accordingly, claims 17 and 18 patentably distinguish over the cited art for at least the above mentioned reasons.

Claims 4-6 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al., (U.S. 6,754,818) in view of Applicant's Admitted Prior Art (hereinafter "AAPA") and further in view of Wu et al. (U.S. 6,105,130).

Applicants submit that neither AAPA nor Wu, individually or combined, cure the deficiencies of Lee described above. Accordingly, dependent claims 4-6 and 16 inherit the patentable recitations of their respective base claims, and therefore, patentably distinguish over the cited art for at least the above-mentioned reasons in addition to the additional features recited therein.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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